

NORTH PACIFIC OCEAN

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At the beginning of April there were few traces of cyclonic disturbances over any part of the North Pacific Ocean. The Aleutian region was overspread with an anticyclone of great magnitude, and in the Far East the barometer was mostly high, with no depressed areas of consequence. The only cyclone under observation was one of moderate strength lying between longitude 140° W. and the California coast. This disturbance merged on the 4th with the low pressure area then existent over the western part of the United States, after causing some isolated gales of force 8 at sea on the 3d.

Cyclonic conditions came into the Aleutian region on the 6th, but were mostly confined to the Bering Sea until the 11th, when a considerable depression crossed into the Gulf of Alaska, where it deepened into a cyclone with central pressures below 29 inches on the 12th and 13th. Following this the Aleutian cyclone redeveloped to the westward and continued with centers of fluctuating depth and position until the end of the month, its average center lying over the southwestern waters of the Gulf of Alaska, with neighboring pressures generally not far from normal.

The Pacific-California anticyclone was highly developed in middle latitudes throughout most of the month, and high pressures extended practically across the ocean, with few intruding lows.

Pressure data for several island and coast stations in west longitudes are given in the following table:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean and adjacent waters, April, 1929

Stations	Average pressure	Departure from normal	High-est	Date	Low-est	Date
	Inches	Inch	Inches		Inches	
Point Barrow ¹	29.93	-----	30.50	6th ²	29.40	10th.
Dutch Harbor ¹	29.77	-0.06	30.66	1st	29.06	24th.
St. Paul ¹	29.84	+0.04	30.68	2d	29.26	23d. ³
Kodiak ¹	29.78	-0.02	30.42	3d	29.02	13th.
Midway Island ¹	30.21	+0.11	30.34	11th.	30.00	1st.
Honolulu ⁴	30.08	+0.01	30.16	26th.	29.96	1st.
Juneau ⁴	29.94	-0.02	30.42	4th	29.06	14th.
Tatoosh Island ⁴	29.97	-0.07	30.41	30th.	29.30	14th.
San Francisco ⁴	30.06	+0.02	30.28	7th	29.80	18th.
San Diego ⁴	30.02	+0.06	30.16	14th.	29.88	18th.

¹ P. m. observations only.

² For 27 days.

³ For 28 days.

⁴ A. m. and p. m. observations.

⁵ Corrected to 24-hour mean.

⁶ And on other dates.

April was a comparatively quiet month over the entire North Pacific, although more or less isolated and mostly fresh gales were reported along the upper routes on about 20 days. Very few high winds were met with in lower latitudes, and strong gales in any locality were rare, only one exceeding force 9 being encountered by an observing vessel. This was in the eastern part of the Japan Sea, where the American steamer *Nevada* was caught in a northwest gale of force 11 on the 21st. The storm in which this occurred was by far the most violent progressive cyclone of the month. It seems to have formed in a long trough of low pressure south of Japan on the 19th and to have moved north into the Japan Sea, where it intensified greatly on the 21st; thence it crossed the archipelago with strong gales on the 21st and 22d and proceeded seaward with lessening intensity. During these two days westerly gales of force 8-9 were encountered on the storm's lower quadrants from south of Yokohama eastward to a distance of a thousand or more miles at sea.

A moderate norther occurred in the Gulf of Tehuantepec on the 3d.

The prevailing wind direction at Honolulu was from the east, trades blowing there on all but one day. The maximum velocity was at the rate of 29 miles an hour from the east on the 11th.

Fog this month was observed from Lower California up the coast to Vancouver, thence westward along the upper steamship routes to Japan, and down to the Ogasawara Islands, near which it was reported on two days. Throughout the delineated area it occurred on from one to four days. This was the first month of the year to have consequential fog in east longitudes. There were two reports of fog off the Central American coast near 10° 45' N., 89° W., on the 10th. That of the American tanker *New Jersey*, Capt. Edw. Jonassen, Homer Epps, observer, is given herewith:

Temperatures of air and water, 76°. Very heavy dew preceded fog, with upper sky clear, visibility poor, haze around the horizon. This gradually became worse until, from 4.13 to 5.28 a. m., the fog obliterated everything, visibility being confined to approximately 300 feet. Wind was light NNW. Fog backed in from SW., then light variable airs prevailed.